Abstract of the Disclosure

A turbine rotor (eg: a Pelton wheel) is described which comprises a plurality of individual radial body members (11) comprising one or more impeller elements (eg: buckets) (1). The radial body members comprises segments which have leading (13) and trailing (15) radial abutment surfaces that contact with the respective radial abutment surfaces of adjacent radial body members when assembled as a unit. Each radial body member comprises at least one further abutment (21), preferably two at opposite axial ends (17,19) thereof, and locating means (26,27) is provided which co-operates with the further abutment means, preferably directly. Wedging means which is tapered in the radial direction relative to the axis of rotation of the turbine rotor, acts between the radial body members and the locating means, and means is provided which acts via said wedging means to draw the radial body members radially inwards to hold them together as a unit.

More particularly the locating means comprises two collars (26,27) which are engageable with a respective one of the axial end abutments (21) of the radial body members, and the wedging means comprises frusto conical formations of the further abutments of the radial body members and the locating means.

The means acting via the wedging means to draw the body members radially inwards comprises axial clamping means (35) operable between the two collars and/or taper action locating means (34,38) securing the two collars to a connecting shaft or axle element (6).